

# NAAQS & Regional Haze Update



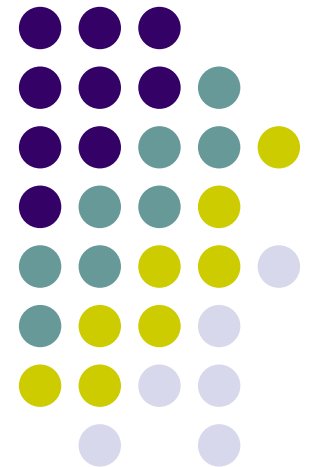
**Lydia Wegman**

Director, Air Quality Strategies & Standards Division,  
Office of Air Quality Planning & Standards, EPA

STAPPA/ALAPCO 2005 Fall Membership Meeting, Arlington, VA  
October 25, 2005

# PM2.5 Implementation Program

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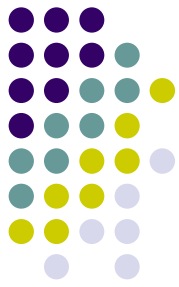




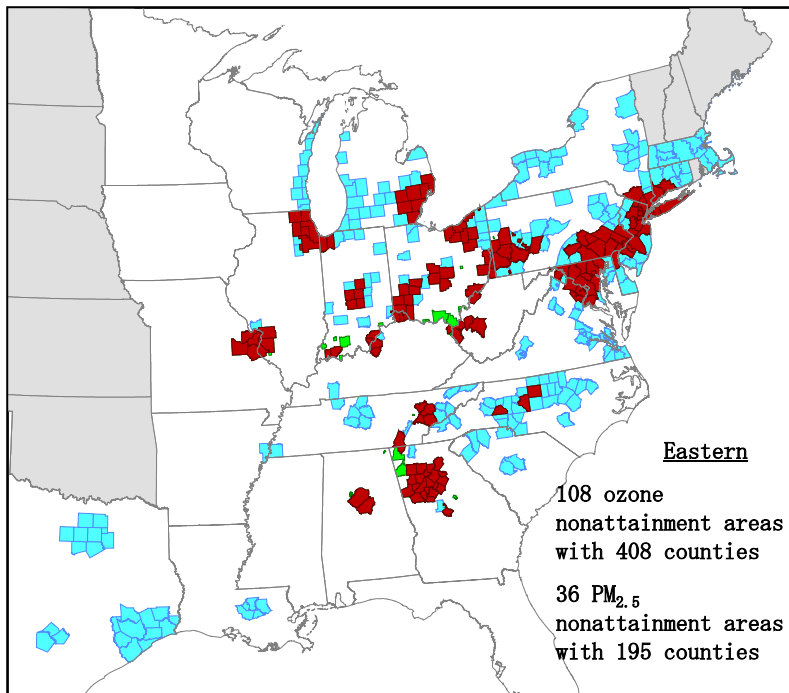
# PM<sub>2.5</sub> Implementation Schedule

- September 8, 2005: Proposed implementation rule signed by Administrator
- November 1, 2005: Publication date (tentative)
- Summer/Fall 2006: Finalize implementation rule
- December 2007: Regional haze implementation plans due
- April 2008: PM<sub>2.5</sub> SIPs due
  - EPA encourages States to coordinate development of regional haze and PM<sub>2.5</sub> plans and intends to review these plans together

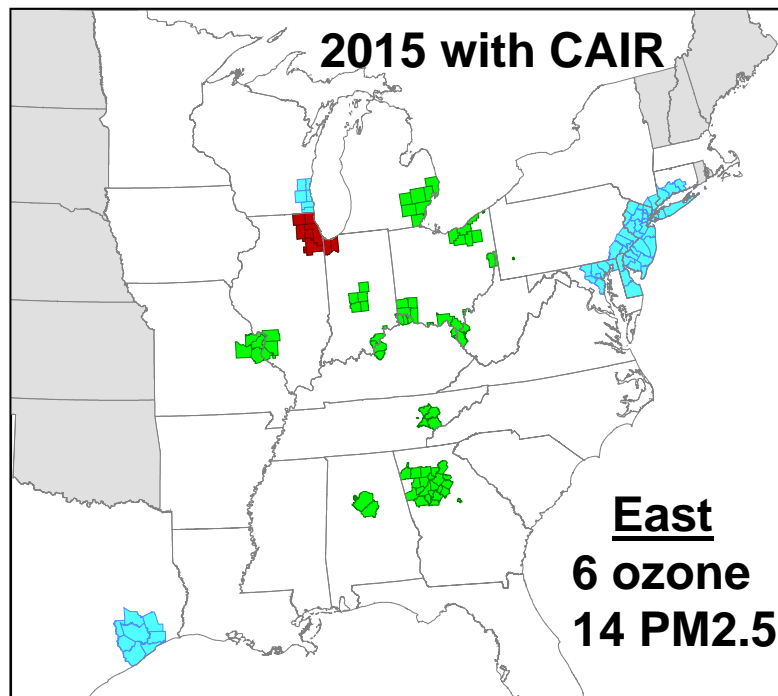
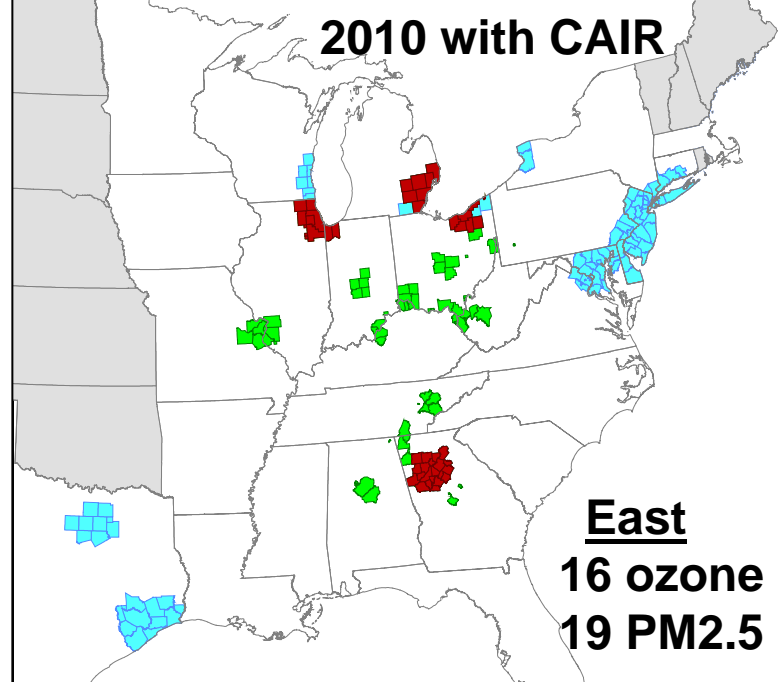
# PM2.5 Implementation: Overall Approach



- Rule is based on “basic” nonattainment requirements in Clean Air Act (section 172, subpart 1)
- State plans are due in April 2008
- Coordinate planning and strategies to address regional haze and 8-hour ozone issues as well
- For each area, State plan will propose a date for attaining the PM2.5 standards “as expeditiously as practicable”
  - In proposing an attainment date, the State should consider the regional and local/in-state contributors to the problem
  - Significant air quality improvement is expected from regional/national (e.g. CAIR, nonroad diesel rule) and State rules on the books
  - Adopt reasonable local and in-state measures to advance attainment and protect public health. Even modest air quality improvements provide PM benefits in excess of costs.



*Projected NAs in 2010 and 2015 after reductions from CAIR and existing CAA programs*



**Ozone & Fine Particle Nonattainment (Apr. 05)**

- CAIR and other CAA programs will help bring many eastern areas into attainment
- However, a number of areas are projected to not attain through 2010 and 2015

- Nonattainment areas for 8-hour ozone pollution only
- Nonattainment areas for fine particle pollution only
- Nonattainment areas for both 8-hour ozone and fine particle pollution

Projections concerning future levels of air pollution in specific geographic locations were estimated using the best scientific models available. They are estimations, however, and should be characterized as such in any description. Actual results may vary significantly if any of the factors that influence air quality differ from the assumed values used in the projections shown here.

# 22 PM2.5 Areas Projected to Not Attain by 2010



- Atlanta, GA
- Birmingham, AL
- Canton, OH
- Charleston, WV
- Chattanooga, TN-GA-AL
- Chicago, IL
- Cincinnati, OH-KY-IN
- Cleveland, OH
- Columbus, OH
- Detroit, MI
- Huntington-Ashland, WV-OH-KY
- Indianapolis, IN
- Knoxville, TN
- Libby, MT
- Los Angeles (South Coast), CA
- Louisville, KY-IN
- Macon, GA
- Pittsburgh (Liberty-Clairton), PA
- Rome, GA
- San Joaquin, CA
- St. Louis, MO-IL
- Steubenville-Weirton, OH-WV

Total: 122 counties, 51 million population

Very close: New York, Philadelphia, Baltimore, Athens, GA

# PM<sub>2.5</sub> Implementation Rule Issues



- Attainment dates
- Classifications
- PM<sub>2.5</sub> precursors
- Modeling and attainment demonstration
- Reasonably available control technology (RACT)
- Reasonably available control measures (RACM)
- Reasonable further progress (RFP)
- New source review

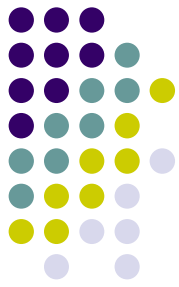


# Attainment Dates

- State attainment demonstrations and SIP revisions are due April 2008
  - Attainment demonstrations need to provide the supporting analysis for State adoption of measures that will result in the area attaining the standard “as expeditiously as practicable”
- Under CAA, attainment date is no later than five years from date of designation (i.e. April 2010)
  - Extensions of 1-5 years are possible (see following slides)
- Attainment determination would be based on most recent 3 calendar years (e.g., 2007-2009 for April 2010 attainment date)



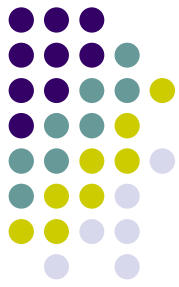
# Attainment Date Extension



## At time of SIP submittal

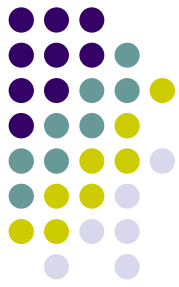
- State must provide thorough analysis of feasible RACM and RACT in the nonattainment area
  - Based on this analysis, the State can propose an attainment date extension and EPA can grant such an extension, taking into consideration:
    - the severity of the nonattainment problem
    - the availability and feasibility of control measures
  - The extension can be up to five years beyond April 2010

# Attainment Date Extension (cont.)



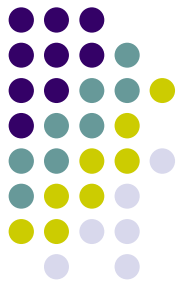
- For an extension, the State must include a modeling demonstration which:
  - Shows that attainment by April 2010 is not practicable, considering the severity of the problem and availability and feasibility of controls
  - Supports what future date is an appropriate attainment date

# When Assessing Attainment: Possibility of Two One-Year Extensions



## Example

- Attainment date for an area is April 2010, to be based on 2007-2009 data
- If 2007 and 2008 are over 15.05 but the annual average for the 2009 attainment year is below 15.05, the area can receive a 1-year extension
  - Attainment then will be based on 2008-2010
- If the average of 2009 and 2010 is below 15.05, the area can receive a second 1-year extension
  - Attainment then will be based on 2009-2011



# Classifications

## Option 1: No classification system

- Keeps it simple under subpart 1

## Option 2: Moderate & serious classifications

- Request comment on criteria for two-tier system (examples: attainment date within 5 years or not; design value threshold)



# Coverage of PM<sub>2.5</sub> Precursors

- Atmospheric chemistry leading to PM<sub>2.5</sub> formation is complex
- Proposed approach for PM<sub>2.5</sub> implementation and new source review:
  - PM<sub>2.5</sub> direct emissions (includes organic carbon, elemental carbon, and crustal material) and SO<sub>2</sub> must be addressed
  - NO<sub>x</sub> must be addressed in all areas, unless the State and EPA provide a demonstration finding that NO<sub>x</sub> is not a significant contributor in a specific area
  - VOC and ammonia would not be addressed, unless EPA or the State provides a demonstration that VOC or ammonia is a significant contributor in a particular area



# Modeling and Attainment Demonstrations

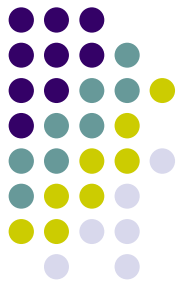
- All nonattainment areas need to submit an attainment plan having appropriate modeling according to PM<sub>2.5</sub> modeling guidance
- One-atmosphere modeling recommended (ozone, PM, haze)
- Years to model: coordinate with ozone and regional haze attainment & reasonable progress dates to the extent possible
- Mid-course reviews will be required on a case-by-case basis through SIP approval process
  - Check progress in 2010 and 2013; if not on track, conduct new modeling and evaluate new measures

# Reasonably Available Control Technology (RACT)



- RACT is the lowest emission limit that a source is capable of meeting with available control technology, considering technological and economic feasibility.
  - **Option 1:** RACT required for all stationary sources with the potential to emit (pte) more than 100 tpy of direct PM<sub>2.5</sub> or any precursor
    - Also requesting comment on thresholds of 70 and 50 tpy
  - **Option 2:** RACT required for stationary sources only to the extent it is needed for expeditious attainment or to meet RFP
  - **Option 3:**
    - Option 2 for areas with attainment dates within 5 years
    - Option 1 for areas with attainment dates > 5 years

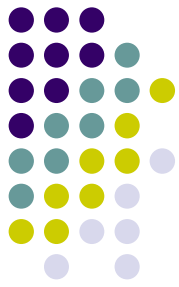
# RACT for Electric Generating Units



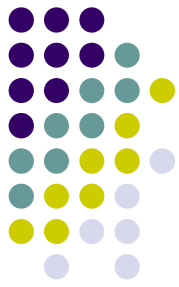
- Proposal: If a State meets its CAIR SO<sub>2</sub> cap through EGU reductions only, then EGUs in nonattainment areas and complying with CAIR would be found to meet RACT
- If a State meets its CAIR NO<sub>x</sub> cap through EGU reductions only, then EGUs in nonattainment areas and complying with CAIR would be found to meet RACT, provided NO<sub>x</sub> sources with existing selective catalytic reduction technology operate the SCR year-round
- If a State achieves CAIR reductions from non-EGU sources as well as EGUs, then the state would need to determine RACT for EGUs (as well as other sources) in its nonattainment areas
- Consultation for CAIR compliance and attainment planning: Based on past experience, EPA expects that States and power companies will consult on reducing emissions at plants in and near certain nonattainment areas in order to identify opportunities to achieve air quality benefits for nonattainment areas while also complying with CAIR



# Reasonably Available Control Measures (RACM)



- A RACM demonstration must show that the State has adopted all reasonable measures needed to attain the standard as expeditiously as practicable and meet RFP
  - The demonstration should show that there are no additional measures available that would advance the attainment date or contribute to RFP.
  - In determining RACM for an area, the state must consider the cumulative impact of implementing the available measures and whether such measures taken together would advance the attainment date.
  - Limited RACM analysis for areas with attainment dates of April 2010 or earlier



## RACM (cont.)

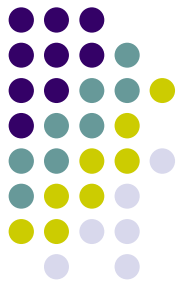
- Preamble includes a list of specific measures that States should consider as part of the RACM analysis.
  - States would not be required to adopt these measures, but should assess whether implementing such measures is technically and economically feasible and whether it would advance the attainment date
  - States also must analyze additional measures raised in public comment process.



# Example Control Measures

- Diesel retrofits (trucks, school buses, stationary engines)
- Diesel idling (trucks, trains, port equipment, etc.)
- Programs to reduce emissions from poorly maintained vehicles
- New or improved direct PM and precursor controls on stationary sources
- Year-round operation of seasonal stationary source NOx controls
- Increase use of alternative fuel, hybrid vehicles
- Buy-back programs for small engines (boats, vehicles, equipment)
- Year-round measures to reduce VMT (Commuter Choice, carpooling incentives, etc.)
- Open burning laws and better enforcement
- Programs to reduced emissions from residential wood combustion and back yard barrel burning
- Smoke management plans
- Reducing emissions of volatile aromatic compounds (surface coatings, gasoline, solvents, etc.)

\*\* We have provided grant funding to STAPPA to develop a PM2.5 “Menu of Options” document. Target completion date: fall / winter 2005.



# Reasonable Further Progress (RFP)

- RFP: annual incremental reductions in emissions for purpose of ensuring timely attainment
- Baseline emission inventory year is 2002
- RFP plan due with attainment demonstration in 2008
  - If attainment date is no later than 5 years from designations (up to April 2010), RFP would be deemed to be met
  - For areas with an attainment date extension, the State would establish emission reduction milestones showing generally linear progress from 2002 to January 1, 2010 and January 1, 2013 (if necessary)

# New Source Review Proposed Revisions for PM2.5



## Requirements

- Significant emissions rate for PM2.5 – 10 tpy
- Precursors
  - SO2 always “in” as a precursor;
  - NOx presumed “in” unless State demonstrates that NOx is a significant contributor to PM2.5 or part of the transport problem
  - VOC and ammonia presumed “out” unless State demonstrates otherwise. Ammonia is not a precursor in PM2.5 attainment areas.
- PM 2.5 regulated under Subpart 1 – Major source threshold 100 tpy; offset ratio 1:1

# New Source Review

## Proposed Revisions for PM2.5 (cont.)



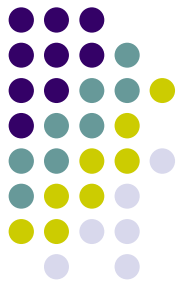
### Current program until PM2.5 rule is promulgated

- Interim guidance memo for both attainment and nonattainment areas
- Use PM10 as a surrogate for PM2.5

### NSR Provisions during SIP development period

(from final rule until State implementation plans are approved)

- PSD program
  - Continue implementing guidance using PM10 as surrogate (include condensables and PM 2.5 modeling analysis); or
  - Update guidance to reflect the PM2.5 rule provisions or revise 40 CFR part 51 appendix S to point to PM 2.5 provisions in 40CFR 52.21; or
  - States can request delegation of only the federal PM2.5 program
- Nonattainment program
  - Use 40 CFR part 51 appendix S.



# PM<sub>2.5</sub> Implementation Rule - Other Issues

- Technical overview – chemistry, sources, ambient data
- Transportation conformity and general conformity
- Contingency measures
- Innovative program mechanisms
- PM<sub>2.5</sub> source test methods / condensables
- Improved monitoring techniques to reduce emissions
- Emissions inventories
- Tribal issues

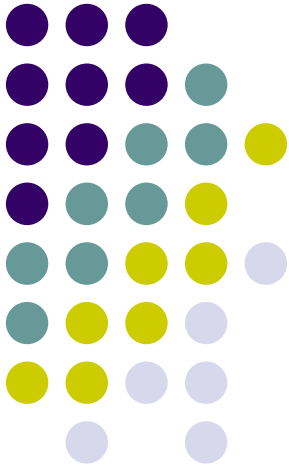


## For more information ...

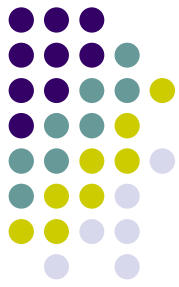
- PM<sub>2.5</sub> designations and the proposed PM<sub>2.5</sub> Implementation Rule are available at: [www.epa.gov/pmdesignations](http://www.epa.gov/pmdesignations)
- Technical information is located at:  
[www.epa.gov/ttn/naaqs/pm/pm25\\_index.html](http://www.epa.gov/ttn/naaqs/pm/pm25_index.html)
- Contacts:
  - Rich Damberg, [damberg.rich@epa.gov](mailto:damberg.rich@epa.gov)
  - Amy Vasu, [vasu.amy@epa.gov](mailto:vasu.amy@epa.gov)
  - Joe Paisie, [paisie.joe@epa.gov](mailto:paisie.joe@epa.gov)
  - Raj Rao, [rao.raj@epa.gov](mailto:rao.raj@epa.gov) (NSR issues)



# PM NAAQS Review

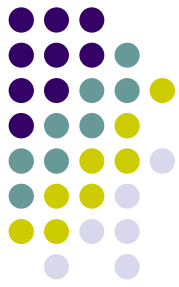


# Components of full PM NAAQS proposal (December 20, 05)



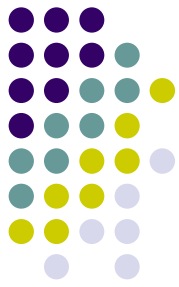
- NPR for Part 50: primary and secondary standards and appendices
- NPR for Parts 53 and 58: ambient monitoring regulations
- NPR for exceptional and natural events
- ANPR on implementation issues
- Regulatory Impact Analysis (RIA)

# Overview



- Current PM standards:
  - Primary (health-based) PM<sub>2.5</sub> standards:
    - 15 µg/m<sup>3</sup>, annual average
    - 65 µg/m<sup>3</sup>, 24-hour average
  - Primary (health-based) PM<sub>10</sub> standards:
    - 150 µg/m<sup>3</sup>, 24-hour average
    - 50 µg/m<sup>3</sup>, annual average
  - Secondary (welfare-based) standards: identical to primary standards
- Unprecedented amount of new science since the last review
- Staff and CASAC recommendations and supporting science
  - Primary PM<sub>2.5</sub> standards
  - Primary PM<sub>10</sub> standards
  - Secondary PM standards for visibility and other welfare effects

# Primary PM<sub>2.5</sub> standards: staff recommendations in OAQPS Staff Paper



- Indicator: retain PM<sub>2.5</sub>
- Averaging times: retain annual and 24-hr averaging times
- Forms:
  - Annual standard: revise to base form on highest community-oriented monitor within an area or tighten constraints on allowance for spatial averaging
  - 24-hr standard: retain 98<sup>th</sup> percentile form or revise to 99<sup>th</sup> percentile form
- Consider alternative suites of standards:
  - Retain annual standard at current level of 15 µg/m<sup>3</sup> together with a revised 24-hr standard in the range of:
    - 30 to 25 µg/m<sup>3</sup>, based on a 98<sup>th</sup> percentile form, or
    - 35 to 30 µg/m<sup>3</sup>, based on a 99<sup>th</sup> percentile form
  - Revise annual standard within the range of 14 to 12 µg/m<sup>3</sup>, together with a revised 24-hr standard in the range of 40 to 30 µg/m<sup>3</sup>, selected such that one of both standards are set at the middle to lower end of these ranges

# Primary PM<sub>2.5</sub> standards: CASAC recommendations



- CASAC found staff recommendations “scientifically well-reasoned”
- CASAC advised that primary PM<sub>2.5</sub> standards should be revised “to provide increased public health protection”
  - Consensus in agreement with staff recommendations that focused primarily on lowering the 24-hr PM<sub>2.5</sub> standard
    - In addition, Panel “did not endorse the option of keeping the annual standard at its present level”
  - Most Panel members favored a 24-hr standard in the range of 35 to 30 µg/m<sup>3</sup> together with a revised annual standard in the range of 14 to 13 µg/m<sup>3</sup>
  - Most Panel members favored continued use of 98<sup>th</sup> percentile form, along with continued use of annual and 24-hr averaging times

# Primary PM<sub>2.5</sub> standards: health evidence related to long-term exposures



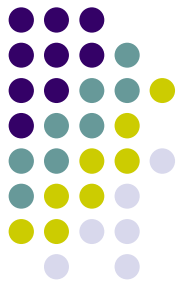
- **PM<sub>2.5</sub> associations with cardio-respiratory mortality and respiratory morbidity**
  - Extensive re-analyses support original findings and greatly increase confidence in key mortality studies (Six Cities and American Cancer Society studies)
  - Extended ACS study reported somewhat lower relative risks that remain important from a public health perspective, across lower exposure levels
  - New morbidity studies using Southern California children cohort support findings of earlier Harvard 24-city study of increased respiratory disease or decreased lung function
- **Air quality levels associated with effects in key studies:**
  - Mortality: Significant associations in ACS and Six Cities cohort studies with across-area mean concentrations of 17.7 and 18  $\mu\text{g}/\text{m}^3$ , respectively (earlier ACS study at mean concentration of 21  $\mu\text{g}/\text{m}^3$ )
  - Morbidity: Significant associations in Southern California children's study and 24-City study, with across-area mean concentrations of 15 and 14.5  $\mu\text{g}/\text{m}^3$ , respectively
- **Staff considered level for annual standard “somewhat below” long-term average concentrations across cities in each study or where association becomes appreciably more uncertain**
  - In ACS study, one standard deviation below long-term average = 14  $\mu\text{g}/\text{m}^3$ ; confidence intervals appreciably wider at about 13 – 12  $\mu\text{g}/\text{m}^3$

# Primary PM<sub>10</sub> standards: staff recommendations



- Indicator: replace PM<sub>10</sub> with a more narrowly defined indicator
  - Establish a “qualified” PM<sub>10-2.5</sub> indicator, defined so as to exclude coarse particles from rural windblown dust and agricultural and mining operations (consistent with Staff Paper recommendation for an indicator of coarse particles from sources generally present in urban environments)
  - Emphasize urban focus through monitoring network design and natural/exceptional events rules
- Averaging time: retain 24-hr averaging time, but little basis for retaining an annual standard
- Form for 24-hr standard: either 98<sup>th</sup> or 99<sup>th</sup> percentile form
- Consider alternative levels for a 24-hr standard, with lower end of range reflecting relatively greater weight on the air quality data from the very limited epidemiologic studies, and the upper part of the range reflecting levels that are generally “equivalent” to current standards
  - 50 to 70 µg/m<sup>3</sup> (98<sup>th</sup> percentile form)
  - 60 to 85 µg/m<sup>3</sup> (99<sup>th</sup> percentile form)

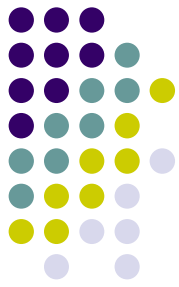
# Primary PM<sub>10</sub> standards: CASAC recommendations



- Panel found final Staff Paper to be responsive to previous advice and agrees with summary of scientific data
- General concurrence among Panel members on the need for a standard for particles between 2.5 and 10  $\mu\text{m}$  (17 of 17 members who commented)
  - Supports 24-hour averaging time; agrees that annual standard not warranted
  - Strongly recommends use of 98<sup>th</sup> percentile form
- Most but not all Panel members support an urban-oriented indicator
  - Considered as a surrogate for urban-type components/sources that differ in composition from natural crustal particles; research needed
  - However, some recommended a PM<sub>10-2.5</sub> indicator accompanied by monitoring and exceptional-events guidance to emphasize urban influences
- Agreement that staff presented reasonable justification for range of levels
  - Most members favored levels at upper end of range
  - Several supported lower end of range

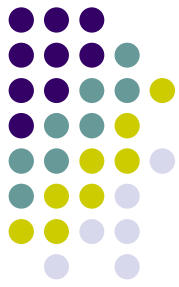


# Primary PM<sub>10</sub> standards: health evidence related to short-term exposures to thoracic coarse particles



- Toxicologic/dosimetric evidence suggests effects with several components of particles typical of urban areas (e.g., road dust particles), but not particles of geologic origin (e.g., Mt. St. Helens dust)
- Epidemiologic studies
  - Associations reported in urban areas
  - No associations between mortality and PM<sub>10</sub> from wind storms
  - Lack of evidence in non-urban areas, including communities predominantly influenced by agricultural or mining activities
- Distinctions in coarse particles seen in urban and non-urban/rural areas
  - Higher exposures in urban areas from local sources (e.g., resuspended dust from high traffic-density paved roads; industrial sources)
  - Urban coarse particles enriched by contaminants (e.g., metals, other air toxics) not commonly found in natural geologic crustal materials typical of rural particles
- Large uncertainties in population exposure to ambient PM<sub>10-2.5</sub>
  - Significant morbidity associations in areas with 98<sup>th</sup> percentile PM<sub>10-2.5</sub> values in the range of 30-40 µg/m<sup>3</sup>
  - Less consistent mortality associations; only in areas with relatively high concentrations (e.g., above 50 µg/m<sup>3</sup>)

# Secondary PM standards: staff recommendations in OAQPS Staff Paper



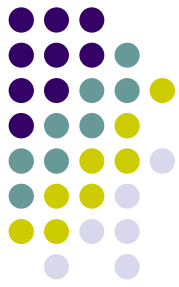
## Visibility impairment:

- Revise standards to provide increased, more targeted protection primarily in urban areas from visibility impairment related to fine particles
- Averaging time: 4 to 8 daylight hours
- Form: percentile-based, from 92<sup>nd</sup> to 98<sup>th</sup> percentile of the annual distribution of daily short-term PM<sub>2.5</sub> concentrations, 3-year average
- Consider alternative levels, based on achieving a visual range of 25 to 35 km, primarily in urban areas, as well as improved visual air quality in surrounding non-urban areas
  - Levels: in the range of 30 to 20  $\mu\text{g}/\text{m}^3$ , depending on form of the standard
  - Could provide an appropriate degree of protection, generally in urban areas, which would complement the protection of visual air quality in Class I areas afforded by the Regional Haze Rule

## Other welfare effects (vegetation/ecosystems; materials damage/soiling):

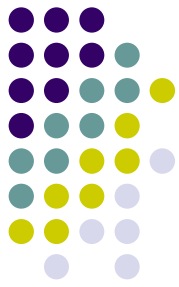
- Revise standards to be identical to primary PM standards in all respects

# Secondary PM<sub>2.5</sub> standard for visibility: CASAC recommendations



- CASAC found staff assessment to be well-conceived and strongly supported staff recommendation for a distinct secondary PM<sub>2.5</sub> standard to protect urban visibility
- CASAC supports the range of levels recommended by staff and consider it to be appropriate based on the existing data
  - Some members considered this range of levels to be high, yet recognized that additional studies would be needed to support a more specific and protective level
- CASAC panel members recommended considering a 92<sup>nd</sup> to 98<sup>th</sup> percentile form, combined with a level toward the upper-end of the proposed range of 30 to 20 µg/m<sup>3</sup>

# Exceptional/Natural Events Coordination



- 3 conference calls with STAPPA/ALAPCO already
- November 3 conference call
- Planning 1 more conference call prior to proposal

# Exceptional/Natural Events

## Issues that EPA and States have General Agreement on:



- The process for making decisions on data affected by exceptional events
- The level of documentation needed to support an exceptional event claim
- The timeline related to flagging data after an event and the submittal of documentation

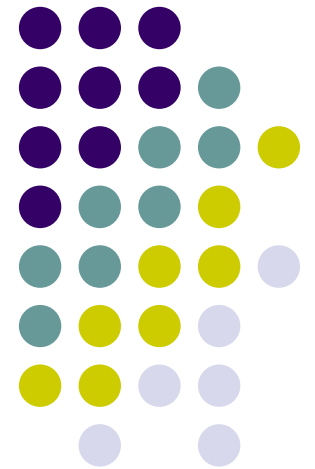
# Exceptional/Natural Events Issues under Discussion



- Definition of natural and exceptional events will be in the rule
- How the rule will apply to ozone and other pollutants
- Requirements for a public review process related to an exceptional events claim
- Contents of the Exceptional Events Mitigation Plans
- Implementation of the Mitigation Plans

# BART

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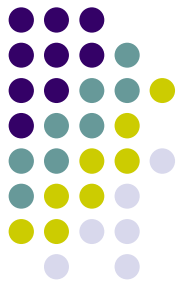




## Regional Haze/BART Timeline

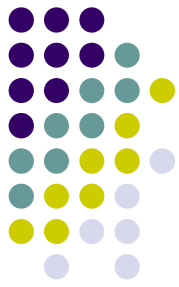
- July 1999: Regional Haze Rule
- July 2001: Best available retrofit technology (BART) guidelines proposed
- May 2002: DC Cir. in *American Corn Growers* vacates BART provisions in RH Rule
  - Court objected to inclusion of individual sources based on collective assessment of visibility impacts from all sources
- April 2004: RH BART provisions / BART Guidelines repropoed





## Regional Haze/BART Timeline (cont.)

- Feb 2005: DC Cir. in *CEED* vacates “WRAP Annex Rule” due to BART-related provisions
  - Court remanded trading programs for WRAP states
- June 15, 2005: Final BART Rule
- Sept 2005: CEED + UARG file “intent to sue”
- Nov/Dec 2005: Final BART Trading & WRAP Annex rule will be issued
- Dec 17, 2007: Regional Haze SIPs due



# BART Guidelines Package Overview

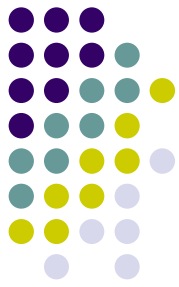
- How to determine if a source meeting initial CAA criteria is “reasonably anticipated to cause or contribute to haze” – i.e. is subject to BART
- How to determine what BART is at a particular source – i.e., how to apply the 5 CAA factors
- States have a a fair amount discretion in making BART determinations
- Determination that Clean Air Interstate Rule (CAIR) is “better than BART” and thus can substitute for BART for EGUs in the CAIR states
- Presumptive limits for EGUs > 200 MW



## 3 Steps in Determining BART

- Is a source BART-eligible?
  - Major sources >250 tons per year
  - Built between 1962 and 1977
  - 26 source categories, including EGUs & industrial boilers, kraft pulp mills, and refineries
- Is the source reasonably anticipated to cause or contribute to regional haze in any Class I area?
  - If so, the source is subject to BART
  - Determined through modeling of individual source visibility impacts
- For sources subject to BART, make a BART determination
  - CAA lays out five factors in determining what controls, if any, should be applied
  - Factors include cost, visibility impacts, remaining useful life, energy impacts, non-air-quality environmental impacts

# For all sources subject to BART, States determine BART based on 5 CAA Factors:



- Costs of compliance
- Energy and non-air environmental impacts
- Existing controls at source
- Remaining useful life of source
- Visibility improvement reasonably expected from the technology



## Presumptive controls for EGUs over 750 MW

- **SO<sub>2</sub>**: 95% control or 0.15 lbs/MMBtu.
- **NO<sub>x</sub>**:
  - In NO<sub>x</sub> SIP call area, extend use of controls to year-round.
  - Outside NO<sub>x</sub> SIP call area, current combustion controls
    - 0.2 – 0.45 lbs/mmBtu, depending on coal and boiler type

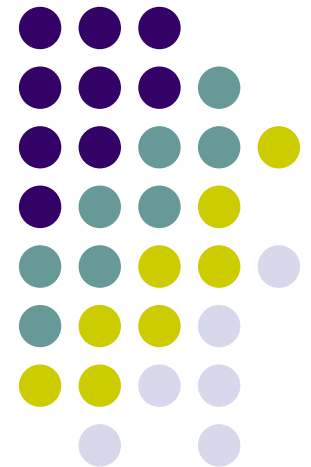


## For more information:

- EPA staff have drafted a Q&A document covering the most common concerns about BART
- For more information, contact:
  - Todd Hawes ([hawes.todd@epa.gov](mailto:hawes.todd@epa.gov))
  - Kathy Kaufman ([kaufman.kathy@epa.gov](mailto:kaufman.kathy@epa.gov))
  - Joe Paisie ([paisie.joe@epa.gov](mailto:paisie.joe@epa.gov))

# 8-Hour Ozone NAAQS Implementation Rule

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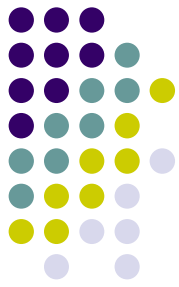


# Ozone Implementation Schedule

Date	Action
April 2004	EPA issued final designations & Final Phase I Implementation rule
June 15 2004	Effective Date of Designations
Fall 2005	Final Phase 2 Implementation Rule
2006	RACT SIPs due (proposed)
June 15 2007	Ozone SIPs due (proposed)
2007-2024	Range of attainment dates

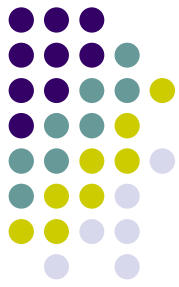


# Phase 1 of the Implementation Rule



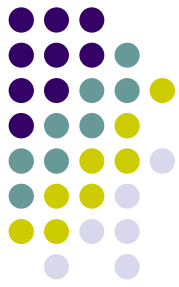
- Classifications for the 8-hour standard designations
- Revocation of the 1-hour standard and the CAA's anti-backsliding provisions
- Attainment dates and attainment date extensions
- Timing of emissions reductions needed for attainment

# Stated Issues of Intent in Petitions for Reconsideration



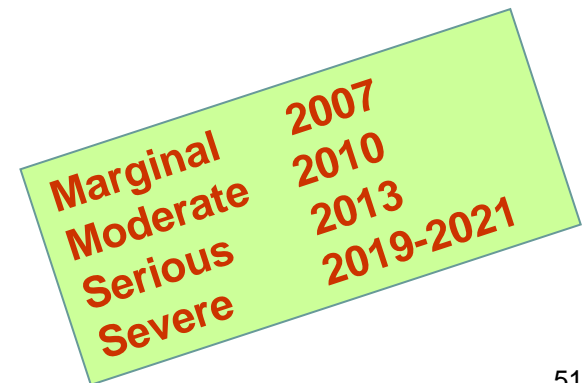
- Revocation of the 1-hour standard, associated planning requirements and attainment dates
- Classification scheme placing some areas in subpart 1 and others in subpart 2
- EPA's determination not to retain 185 penalty fees and major source applicability cut-offs and offset ratios under anti-backsliding
- Not including RFG as an applicable requirement
- Limiting anti-backsliding to “applicable requirements” that applied as of April 15, 2004
- Determination that EPA will no longer make findings of failure to attain the 1-hr NAAQS and reclassify (bump up) areas
- Establishing overwhelming transport classification based on guidance not yet issued
- Allowing removal of contingency measures from 1-hour maintenance plans under certain circumstances

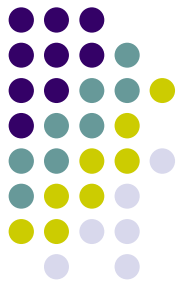
# Plus NPRA/AIP/NAM challenge to 8-hr ozone classification scheme ....



- These challengers want a number of areas to be classified to serious (or higher) to allow more time for CAIR and the “cleaner car/vehicle programs” to secure reductions.
- Rely on existing CAIR modeling and also an OAQPS “local controls” analysis the following 6 eastern areas most like will not attain by 2010 ....

**Milwaukee**  
**New York**  
**Houston**  
**Baltimore**  
**Chicago**  
**Philadelphia**





## Briefing Schedule for Phase I

- Petitioners' briefs due 10/17/05
- EPA's brief due 1/26/06
- Joint brief for environmental, industry and State of Georgia interveners in support of respondents due 2/23/06
- Joint brief reply for all petitioners due 4/20/06
- Final briefs due 5/26/06



# Phase 2 Ozone Implementation Rule

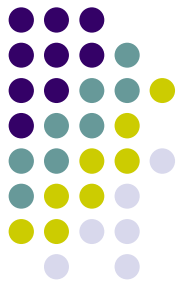
## Key issues addressed

- Attainment Dates for 8-hour ozone NAAQS: Reasonably Available Control Measures (RACM) and attainment “as expeditious as practicable”
- Attainment Demonstration & Modeling provisions
- Reasonable Further Progress (RFP) requirements
- Reasonably Available Control Technology (RACT)
- New Source Review (NSR)
- Reformulated Gasoline (RFG) revisions
- <http://www.epa.gov/ttn/naaqs/ozone/o3imp8hr/>



## Other Issues Covered in Rule/Preamble

- Transport (long-range)
- Contingency Measures
- Applicability to Ozone Transport Region (OTR)
- Clean Air Development Communities
- Optimal mix of controls – PM<sub>2.5</sub> & O<sub>3</sub>
- Emission Inventory
- Ambient Monitoring
- Timing after redesignations (attainment to nonattainment)
- Relevance to tribal areas
- CMAQ funding discussion
- Relationship of 8-hr O<sub>3</sub> SIP and Title V Permit Program
- Will need an Information Collection Request (ICR)

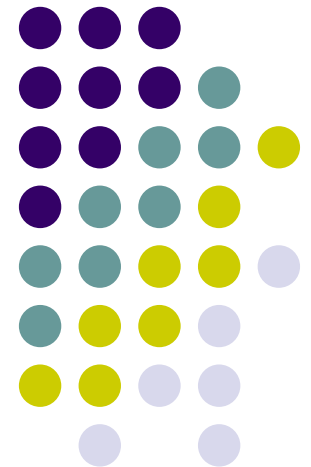


## Timing of Phase 2 Rule

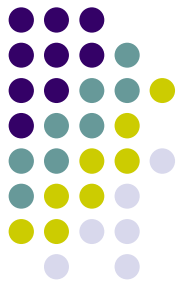
- Rule currently under review by OMB
- Clearance expected shortly, with signature in November 2005
- Publication in Federal Register expected 2-3 weeks after signature

# Clean Air Interstate Rule

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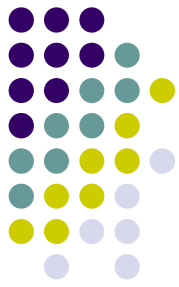






# Petitions for Reconsideration and Petitions for Review of CAIR

- EPA has received 11 petitions for reconsideration and 14 petitions for review of CAIR.
- We have already granted the reconsideration of the definition of EGU as it relates to solid waste incinerators (in the proposal on the NC Section 126 Petition and CAIR FIP).
- We intend to grant on at least one additional issue in the near future.
- No briefing schedule yet for petitions for review. Several motions to hold case are in abeyance pending outcome of reconsideration process.



# Petitions for Reconsideration – Petitioners:

- North Carolina
- FPL Group
- Florida Association of Electric Utilities
- Entergy
- Massachusetts
- Integrated Waste Services Association
- Texas Commission on Environmental Quality
- Northern Indiana Public Service Corporation
- City of Amarillo, Xcel et al.
- Connecticut Business and Industry Association
- Minnesota Power



# Petitions for Review – Petitioners:

- North Carolina
- Minnesota Power
- ARIPPA
- South Carolina Public Service Authority and JEA
- Entergy Corp.
- Florida Association of Electric Utilities
- FPL Group
- Northern Indiana Public Service Co.
- South Carolina Electricity & Gas Co.
- Integrated Waste Service Association
- AES Corp
- City of Amarillo, Xcel et al.
- Appalachian Mountain Club, GASP, National Parks Conservation Ass'n, NRDC
- Duke Energy Corp

# CAIR Federal Implementation Plan



- Provides backstop to ensure emissions reductions required by CAIR are achieved on schedule
- Maintains States' flexibility in meeting CAIR requirements
- EPA would withdraw FIP for any State once CAIR SIP is in place
- No sanctions or penalties associated with FIP
- Provides option for abbreviated SIPs

# CAIR FIP – Abbreviated SIP Option



- To save time and resources to develop full SIP, States could choose to start with FIP and replace four elements to better meet the needs of the State:
  1. Provisions for non-EGUs to opt-in to the Federal trading programs
  2. Allocating annual and/or ozone season NO<sub>x</sub> allowances to individual sources in the State
  3. Allocating allowances from the annual NO<sub>x</sub> Compliance Supplement Pool (CSP) to individual sources in the State
  4. Including NO<sub>x</sub> SIP Call trading non-EGU sources under CAIR in the Federal CAIR ozone season NO<sub>x</sub> cap and trade program